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for (gp140) and (infection) AND (hiv) AND ("CCR5" [TIAB])

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|--------|--|----------|--------|
| #6 | Search (gp140) and (infection) AND (hiv) AND ("CCR5" [TIAB] OR "CCR-5" [TIAB] OR "CCR 5" [TIAB] OR "C-C chemokine receptor type 5" [TIAB] OR "CCCKR5" [TIAB] OR "CCCKR-5" [TIAB] OR "CCCKR 5" [TIAB] OR "C-C CKR-5" [TIAB] OR "CC-CKR-5" [TIAB] OR "CCR-5" [TIAB] OR "CD195" [TIAB] OR "CD-195" [TIAB] OR "CD 195" [TIAB] OR "CD195 antigen" [TIAB] OR "CHEMR13" [TIAB] OR "CHEMR-13" [TIAB] OR "CHEMR 13" [TIAB] OR "CKR5" [TIAB] OR "CKR-5" [TIAB] OR "CKR 5" [TIAB] OR "CKR-5" [TIAB] OR "CMKBR5" [TIAB] OR "CMKBR-5" [TIAB] OR "CMKBR 5" [TIAB] OR "HIV-1 fusion coreceptor" [TIAB]) | 13:22:23 | 9 |
| #5 | Search (gp120) and (infection) AND (hiv) AND ("CCR5" [TIAB] OR "CCR-5" [TIAB] OR "CCR 5" [TIAB] OR "C-C chemokine receptor type 5" [TIAB] OR "CCCKR5" [TIAB] OR "CCCKR-5" [TIAB] OR "CCCKR 5" [TIAB] OR "C-C CKR-5" [TIAB] OR "CC-CKR-5" [TIAB] OR "CCR-5" [TIAB] OR "CD195" [TIAB] OR "CD-195" [TIAB] OR "CD 195" [TIAB] OR "CD195 antigen" [TIAB] OR "CHEMR13" [TIAB] OR "CHEMR-13" [TIAB] OR "CHEMR 13" [TIAB] OR "CKR5" [TIAB] OR "CKR-5" [TIAB] OR "CKR 5" [TIAB] OR "CKR-5" [TIAB] OR "CMKBR5" [TIAB] OR "CMKBR-5" [TIAB] OR "CMKBR 5" [TIAB] OR "HIV-1 fusion coreceptor" [TIAB]) | 13:22:13 | 294 |
| #4 | Search (p24) and (infection) AND (hiv) AND ("CCR5" [TIAB] OR "CCR-5" [TIAB] OR "CCR 5" [TIAB] OR "C-C chemokine receptor type 5" [TIAB] OR "CCCKR5" [TIAB] OR "CCCKR-5" [TIAB] OR "CCCKR 5" [TIAB] OR "C-C CKR-5" [TIAB] OR "CC-CKR-5" [TIAB] OR "CCR-5" [TIAB] OR "CD195" [TIAB] OR "CD-195" [TIAB] OR "CD 195" [TIAB] OR "CD195 antigen" [TIAB] OR "CHEMR13" [TIAB] OR "CHEMR-13" [TIAB] OR "CHEMR 13" [TIAB] OR "CKR5" [TIAB] OR "CKR-5" [TIAB] OR "CKR 5" [TIAB] OR "CKR-5" [TIAB] OR "CMKBR5" [TIAB] OR "CMKBR-5" [TIAB] OR "CMKBR 5" [TIAB] OR "HIV-1 fusion coreceptor" [TIAB]) | 13:21:58 | 112 |

5" [TIAB] OR "CC-CKR-5" [TIAB] OR "CCR-5" [TIAB] OR "CD195" [TIAB] OR "CD-195" [TIAB] OR "CD 195" [TIAB] OR "CD195 antigen" [TIAB] OR "CHEMR13" [TIAB] OR "CHEMR-13" [TIAB] OR "CHEMR 13" [TIAB] OR "CKR5" [TIAB] OR "CKR-5" [TIAB] OR "CKR 5" [TIAB] OR "CKR-5" [TIAB] OR "CMKBR5" [TIAB] OR "CMKBR-5" [TIAB] OR "CMKBR 5" [TIAB] OR "HIV-1 fusion coreceptor" [TIAB])

#3 Search (infection) AND (hiv) AND ("CCR5" [TIAB] OR "CCR-5" [TIAB] OR "CCR 5" [TIAB] OR "C-C chemokine receptor type 5" [TIAB] OR "CCCKR5" [TIAB] OR "CCCKR-5" [TIAB] OR "CCCKR 5" [TIAB] OR "C-C CKR-5" [TIAB] OR "CC-CKR-5" [TIAB] OR "CCR-5" [TIAB] OR "CD195" [TIAB] OR "CD-195" [TIAB] OR "CD 195" [TIAB] OR "CD195 antigen" [TIAB] OR "CHEMR13" [TIAB] OR "CHEMR-13" [TIAB] OR "CHEMR 13" [TIAB] OR "CKR5" [TIAB] OR "CKR-5" [TIAB] OR "CKR 5" [TIAB] OR "CKR-5" [TIAB] OR "CMKBR5" [TIAB] OR "CMKBR-5" [TIAB] OR "CMKBR 5" [TIAB] OR "HIV-1 fusion coreceptor" [TIAB]) 13:21:24 1557

#2 Search (hiv) AND ("CCR5" [TIAB] OR "CCR-5" [TIAB] OR "CCR 5" [TIAB] OR "C-C chemokine receptor type 5" [TIAB] OR "CCCKR5" [TIAB] OR "CCCKR-5" [TIAB] OR "CCCKR 5" [TIAB] OR "C-C CKR-5" [TIAB] OR "CC-CKR-5" [TIAB] OR "CCR-5" [TIAB] OR "CD195" [TIAB] OR "CD-195" [TIAB] OR "CD 195" [TIAB] OR "CD195 antigen" [TIAB] OR "CHEMR13" [TIAB] OR "CHEMR-13" [TIAB] OR "CHEMR 13" [TIAB] OR "CKR5" [TIAB] OR "CKR-5" [TIAB] OR "CKR 5" [TIAB] OR "CKR-5" [TIAB] OR "CMKBR5" [TIAB] OR "CMKBR-5" [TIAB] OR "CMKBR 5" [TIAB] OR "HIV-1 fusion coreceptor" [TIAB]) 13:20:28 2370

#1 Search (glaucoma) AND ("NR3C1" [TIAB] OR "NR-3-C-1" [TIAB] OR "NR 3 C 1" [TIAB] OR "GCCR" [TIAB] OR "GCCR" [TIAB] OR "GCR" [TIAB] OR "GCR" [TIAB] OR "Glucocorticoid receptor" [TIAB] OR "GR" [TIAB] OR "GR" [TIAB] OR "GRL" [TIAB] OR "GRL" [TIAB]) 07:43:37 22

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| Symbol | Name | Synonyms | Organism |
|----------------|----------------------------------|--|--------------|
| CCR5 | chemokine (C-C motif) receptor 5 | C-C chemokine receptor type 5, CCCKR5, CC-CKR-5, C-C CKR-5, CCR-5, CD195, CD195 antigen, CHEMR13, CKR5, CKR-5, CMKBR5, HIV-1 fusion coreceptor | Homo sapiens |
| UniProt | P51681, O14708, O14699 | | |
| IntAct | P51681 | | |
| PDB Structure | 1NE0, 1OPN | | |
| OMIM | 601373 | | |
| NCBI Gene | 1234 | | |
| NCBI RefSeq | NP_000570 | | |
| NCBI RefSeq | NM_000579 | | |
| NCBI UniGene | 1234 | | |
| NCBI Accession | CAA62796, BC038398 | | |

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The enhanced **macrophage** tropism correlated with reduced sensitivity to inhibition by Q4120, a CD4-specific antibody, but not with sensitivity to the **CCR5**  inhibitor, TAK779.

To modulate migration, human **macrophages** were incubated in the presence of aminoxyptane-regulated on activation, normal, T-cell expressed, and secreted (AOP-RANTES), a potent antagonist of **CCR5** .

Prototype HIV-1 isolates from the CNS are **macrophage** (M)-tropic, non-syncytia-inducing (NSI), and use **CCR5**  for entry (R5 strains), but whether syncytia-inducing (SI) CXCR4-using X4 strains might play a role in macrophage/microglia infection and neuronal injury is unknown.

The small-molecule **CCR5**  antagonist SCH-C (SCH 351125) was tested for its ability to inhibit HIV-1 replication in peripheral blood mononuclear cells (PBMCs), **cord blood** mononuclear cells, immature **dendritic cells** (DCs), and **macrophages**.

G protein-dependent **CCR5**  signaling is not required for efficient infection of primary T lymphocytes and **macrophages** by R5 human immunodeficiency virus type 1 isolates.

Targeting **CCR5**  with siRNAs: using recombinant SV40-derived vectors to protect **macrophages** and **microglia** from R5-tropic HIV.

To understand host mechanisms that affect human immunodeficiency virus type 1 (HIV-1) pathogenesis by modulating expression of coreceptors, cytokine regulation of **CC chemokine receptor 5 (CCR5)**  and CD4 expression on **monocytes**, monocyte-derived **macrophages** (MDMs), and **microglia** was investigated.

Hemofiltrate CC chemokine 1[9-74] causes effective internalization of **CCR5**  and is a potent inhibitor of R5-tropic human immunodeficiency virus type 1 strains in primary **T cells** and **macrophages**.

In the present study we demonstrate that HCC-1[9-74] interacts with the second external loop of **CCR5**  and inhibits replication of CCR5-tropic HIV-1 strains in both primary **T cells** and monocyte-derived **macrophages**.

CCR5  surface expression was absent on **T lymphocytes** and **macrophages**.

Human **cytomegalovirus infection** reduces surface **CCR5**  expression in human microglial cells, **astrocytes** and monocyte-derived **macrophages**.

Such binding was dependent on cell surface **glycosaminoglycans** (GAGs) since it was reduced when **macrophages** or **HeLa cells** expressing or not **CCR5**  were first treated with GAG-specific enzymes.

CONCLUSION: **Opiates** enhance HIV R5 strain infection of **macrophages** through the downregulation

of beta-chemokine production and upregulation of CCR5 receptor [?] expression and may have an important role in HIV immunopathogenesis.

Coreceptor use in transfected cells generally predicted use in primary **macrophages**, although for some Envs macrophages may be a more sensitive indicator of CCR5 use than transfected cell lines.

Macrophages infiltrating the tissue in chronic **pancreatitis** express the chemokine receptor CCR5 [?].

Expression of CCR5 is increased in human monocyte-derived **macrophages** and **alveolar macrophages** in the course of in vivo and in vitro *Mycobacterium tuberculosis* infection.

Because infection of macrophages and microglial cells by NS1 HIV-1 is considered to be instrumental for the development of **AIDS dementia complex** (ADC), we studied whether the CCR5 Delta32 heterozygous genotype correlated with a reduced frequency of ADC.

CCR5- and CXCR4-positive **macrophages** and **microglia** were detected in inflammatory lesions in the brain of children with severe HIV.

Prostaglandin E2 induces resistance to human immunodeficiency virus-1 infection in monocyte-derived **macrophages**: downregulation of CCR5 expression by cyclic adenosine monophosphate.

Alanine substitutions of polar and nonpolar residues in the amino-terminal domain of CCR5 differently impair entry of **macrophage**- and dualtropic isolates of human immunodeficiency virus type 1.

Recent discovery of co-receptor, chemokine receptor (CCR5) which is expressed in **macrophages**, may give a clue to understand the mechanism of **HIV encephalopathy** more precisely.

FTY-induced **lymphopenia** preferentially affects CD62L+ and CCR5- **T-lymphocyte** subpopulations.

CONCLUSIONS: Our data suggest an involvement of CCR5 in **T-cell** accumulation in the inflamed central nervous system.

Novel reporter **T-cell** line highly susceptible to both CCR5- and CXCR4-using human immunodeficiency virus type 1 and its application to drug susceptibility tests.

To establish a simple and rapid assay system for the monitoring of R5 HIV-1 replication and drug susceptibility, we have established a novel reporter **T-cell** line, MOCHA (which represents MOLT-4 cells stably expressing CCR5 and carrying the HIV-1 long terminal repeat-driven secretory alkaline phosphatase).

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| Symbol | Name | Synonym/ DB-reference | Organism |
|---|----------------------------------|-----------------------------|--------------|
|  | | Life cycles of successful g | |
| CCR5 | chemokine (C-C motif) receptor 5 | | Homo sapiens |